IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of calculating probe float; said method comprising:
acquiring a free-hanging planarity measurement;
obtaining a first electrical contact planarity measurement; and
calculating probe float using results of said acquiring and said obtaining.

2. (Original) The method of claim 1 wherein said calculating comprises computing a difference between results of said obtaining and said acquiring.

3. (Original) The method of claim 1 wherein said acquiring comprises:
acquiring a reference planarity measurement;
providing relative translation between a contact surface and a probe card;
identifying new free-hanging probes responsive to said providing;
assigning a planarity value to newly identified free-hanging probes; and
selectively repeating said providing, said identifying, and said assigning.

4. (Original) The method of claim 3 wherein said selectively repeating further comprises selectively iterating said providing, said identifying, and said assigning until a free-hanging planarity value has been assigned to every probe.

5. (Original) The method of claim 3 wherein said acquiring a reference planarity measurement comprises overtraveling said probe card to a state of last electrical contact.

6. (Original) The method of claim 3 wherein said acquiring a reference planarity measurement comprises utilizing an optical system.

7. (Original) The method of claim 6 wherein said identifying new free-hanging probes comprises utilizing said optical system.

8. (Original) The method of claim 6 wherein said providing relative translation comprises increasing a distance between said contact surface and said probe card of approximately half a depth of field associated with said optical system.

9. (Original) A method of measuring probe float in a probe card analyzer system; said method comprising:

acquiring a free-hanging planarity measurement for a probe in an array on a probe card;

obtaining a first electrical contact planarity measurement for said probe; and

calculating probe float using results of said acquiring and said obtaining.

10. (Original) The method of claim 9 wherein said calculating comprises computing a difference between results of said obtaining and said acquiring.

11. (Original) The method of claim 9 further comprising repeating said acquiring, said obtaining, and said calculating for every probe in said array.

12. (Original) The method of claim 11 wherein said acquiring comprises:

acquiring a reference planarity measurement;

providing relative translation between a contact surface and said probe card;

identifying new free-hanging probes responsive to said providing;

assigning a planarity value to newly identified free-hanging probes; and

selectively repeating said providing, said identifying, and said assigning.

13. (Original) The method of claim 12 wherein said selectively repeating further comprises selectively iterating said providing, said identifying, and said assigning until a free-hanging planarity value has been assigned to every probe in said array.

14. (Original) The method of claim 12 wherein said acquiring a reference planarity measurement comprises overtraveling said probe card to a state of last electrical contact.

15. (Original) The method of claim 12 wherein said acquiring a reference planarity measurement comprises utilizing an optical system.

16. (Original) The method of claim 15 wherein said identifying new free-hanging probes comprises utilizing said optical system.

17. (Original) The method of claim 15 wherein said providing relative translation comprises increasing a distance between said contact surface and said probe card of approximately half a depth of field associated with said optical system.

18. (Original) A computer readable medium encoded with data and instructions for calculating probe float in a probe card analyzer; said data and said instructions causing an apparatus executing said instructions to:

acquire a free-hanging planarity measurement;

obtain a first electrical contact planarity measurement; and

calculate probe float using said free-hanging planarity measurement and said first electrical contact planarity measurement.

19. (Original) The computer readable medium of claim 18 further encoded with data and instructions; said data and said instructions further causing an apparatus executing said instructions to compute a difference between said free-hanging planarity measurement and said first electrical contact planarity measurement.

20. (Original) The computer readable medium of claim 18 further encoded with data and instructions; said data and said instructions further causing an apparatus executing said instructions to calculate probe float for every probe in an array.